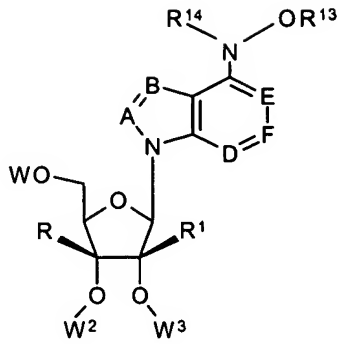
WHAT IS CLAIMED IS:

1. A compound of Formula I:



I

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl,

substituted alkynyl;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

A, B, D, and E are independently selected from the group consisting of >N, >CH, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-alkenyl, >C-substituted alkenyl, >C-alkynyl, >C-substituted alkynyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-hydroxy, >C-alkoxy, >C-amino, >C-alkylamino, >C-dialkylamino, >C-halogen, >C-(1,3-oxazol-2-yl),

>C-(1,3-oxazol-5-yl), >C-(1,3-thiazol-2-yl), >C-(imidazol-2-yl), >C-(2-oxo-[1,3]dithiol-4-yl), >C-(furan-2-yl), and >C-(2H-[1,2,3]triazol-4-yl);

F is selected from >N, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-alkenyl, >C-substituted alkenyl, >C-alkynyl, >C-substituted alkynyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-alkoxy, >C-(1,3-oxazol-2-yl), >C-(1,3-oxazol-5-yl), >C-(1,3-thiazol-2-yl), >C-(imidazol-2-yl), >C-(2-oxo-[1,3]dithiol-4-yl), >C-(furan-2-yl),>C-(2H-[1,2,3]triazol-4-yl), and >C-Y, where Y is selected from the group consisting of hydrogen, halo, hydroxy, alkylthioether, and -NR^3R^4 where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

R^{15} and R^{16} are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

cycloalkyl,

substituted cycloalkyl,

aryl,

substituted aryl,

heteroaryl,

substituted heteroaryl, and

R^{15} and R^{16} together with the nitrogen atom to which they are attached may form a hetercycloalkyl, substituted heterocylcoalkyl, heteroaryl, or substituted heteroaryl;

W, W^2, and $W^3$are independently selected from the group consisting of:

hydrogen,
a phosphate,
a phosphonate,
a monofluorophosphate,
acyl,
a sulfonate ester,
a lipid,
an amino acid,
a carbohydrate,
a peptide, and
cholesterol;

and pharmaceutically acceptable prodrugs and salts thereof;

provided that the compound of Formula I is not:

a) 9-(β-D-ribofuranosyl)-6-hydroxylaminopurine;

b) 7–(β-D-ribofuranosyl)- 4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

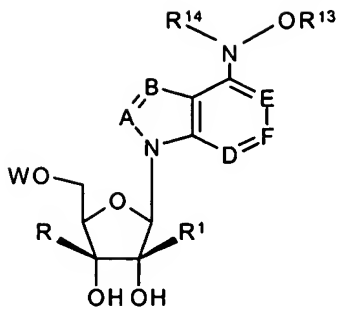
c) 9-(2'-C-methyl-α-D-ribofuranosyl)-6-hydroxylaminopurine;

d) 9-(5'-O-monophosphate-β-D-ribofuranosyl)-6-hydroxylaminopurine; and

e) 9-(5'-O-triphosphate-β-D-ribofuranosyl)-6-hydroxylaminopurine.

2. The compound according to Claim 1, wherein R and R^1 are not both hydrogen.

3. A compound of Formula IA:



IA

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl,

substituted alkynyl;

provided that R and R^1 are not both hydrogen;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

A, B, D, and E are independently selected from the group consisting of >N, >CH, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-hydroxy, >C-alkoxy, >C-amino, >C-alkylamino, >C-dialkylamino, >C-halogen, >C-(1,3-oxazol-2-yl), >C-(1,3-thiazol-2-yl) and >C-(imidazol-2-yl);

F is selected from >N, >CH, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-alkoxy, >C-(1,3-oxazol-2-yl), >C-(1,3-thiazol-2-yl), >C-(imidazol-2-yl), and >C-Y,

where Y is selected from the group consisting of hydrogen, halo, hydroxy, alkylthioether, and $-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

R^{15} and R^{16} are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

cycloalkyl,

substituted cycloalkyl,

aryl,

substituted aryl,

heteroaryl,

substituted heteroaryl, and

R^{15} and R^{16} together with the nitrogen atom to which they are attached may form a hetercycloalkyl, substituted heterocylcoalkyl, heteroaryl, or substituted heteroaryl;

W is selected from the group consisting of:

hydrogen,

a phosphate,

a phosphonate,

acyl,

alkyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

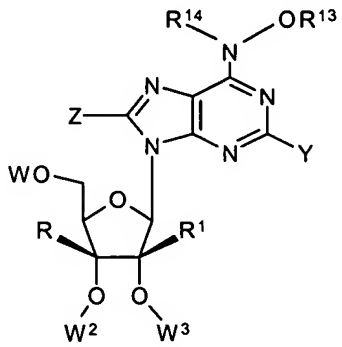
a peptide, and

cholesterol;

and pharmaceutically acceptable salts thereof

provided that the compound of Formula IA is not 9-(2'-C-methyl-α-D-ribofuranosyl)-6-hydroxylaminopurine.

4. A compound of Formula IB:



IB

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl, and

substituted alkynyl;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether,

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

Z is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl,

substituted alkynyl,

cyano,

carboxyl,

carboxyl ester,

acylamino,

1,3-oxazol-2-yl,

1,3-oxazol-5-yl,

1,3-thiazol-2-yl,

imidazol-2-yl,

2-oxo-[1,3]dithiol-4-yl,

furan-2-yl,

2H-[1,2,3]triazol-4-yl, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

W, W^2, and W^3 are independently selected from the group consisting of:

hydrogen,

a phosphate,

a phosphonate,

a monofluorophosphate

acyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

a peptide, and

cholesterol;

and pharmaceutically acceptable prodrugs and salts thereof;

provided that the compound if Formula IB is not

a) 9-(β-D-ribofuranosyl)-6-hydroxylaminopurine;

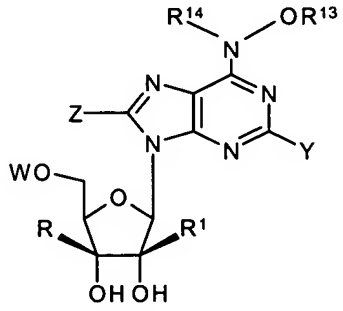
b) 9-(2'-C-methyl-α-D-ribofuranosyl)-6-hydroxylaminopurine;

c) 9-(5'-O-monophosphate-β-D-ribofuranosyl)-6-hydroxylaminopurine; and

d) 9-(5'-O-triphosphate-β-D-ribofuranosyl)-6-hydroxylaminopurine.

5. The compound according to Claim 4, wherein at least one of R and R^1 is other than hydrogen.

6. A compound of Formula IC:



IC

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,
alkyl,
substituted alkyl,
alkenyl,
substituted alkenyl,
alkynyl, and
substituted alkynyl,

provided that R and R^1 are not both hydrogen;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether,

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

Z is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkyl, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

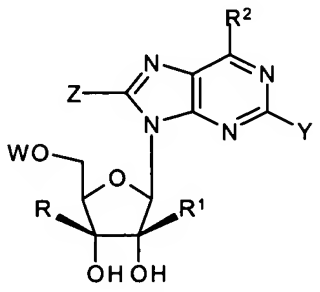
W is selected from the group consisting of:

hydrogen,
a phosphate,
a phosphonate,
acyl,
a sulfonate ester,
a lipid,
an amino acid,
a carbohydrate,
a peptide, and
cholesterol;

and pharmaceutically acceptable salts thereof;

provided that the compound of Formula IC is not 9-(2'-C-methyl-α-D-ribofuranosyl)-6-(-S or R Inactive-)-hydroxylaminopurine.

7. A compound of Formula IC-A:



IC-A

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,
alkyl,
substituted alkyl,
alkenyl,

substituted alkenyl,

alkynyl, and

substituted alkynyl,

provided that R and R^1 are not both hydrogen;

R^2 is $-NR^{3'}R^{4'}$ where $R^{3'}$ is hydrogen and $R^{4'}$ is hydroxy or alkoxy;

Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether,

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 is joined to form, together with the nitrogen atom bond thereto, a heterocyclic group;

Z is selected from the group consisting of:

hydrogen,

halo,

hydroxy, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group;

W is selected from the group consisting of:

hydrogen,

a phosphate,

acyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

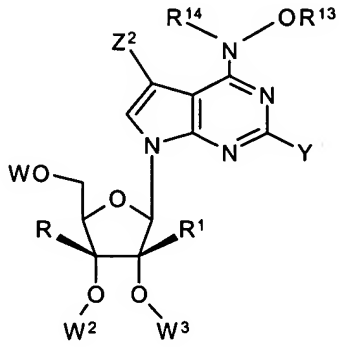
a peptide, and

cholesterol;

and pharmaceutically acceptable salts thereof;

provided that the compound if Formula IC-A is not 9-(2'-C-methyl-α-D-ribofuranosyl)-6-hydroxylaminopurine.

8. A compound of Formula ID:



ID

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl, and

substituted alkynyl;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

Z^2 is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl,

substituted alkynyl,

cyano

carboxyl,

carboxyl ester,

acylamino,
1,3-oxazol-2-yl,
1,3-oxazol-5-yl,
1,3-thiazol-2-yl,
imidazol-2-yl,
2-oxo-[1,3]dithiol-4-yl,
furan-2-yl,
2H-[1,2,3]triazol-4-yl, and
$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

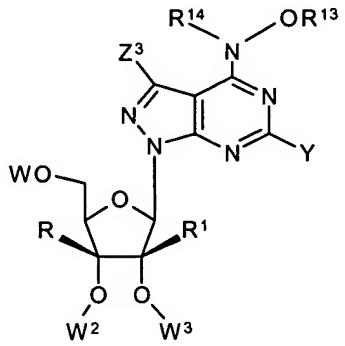
W, W^2, and $W^3$are independently selected from the group consisting of:
hydrogen,
a phosphate,
phosphonate,
monofluorophosphate
acyl,
alkyl,
a sulfonate ester,
a lipid,
an amino acid,
a carbohydrate,
a peptide, and
cholesterol;

and pharmaceutically acceptable prodrugs and salts thereof;

provided that the compound if Formula ID is not 7–(β-D-ribofuranosyl)- 4- hydroxylamino-pyrrolo[2,3-d]pyrimidine.

9. The compound according to Claim 8 wherein at least one of R or R^1 is other than hydrogen.

10. A compound of Formula IE:



IE

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,
alkyl,
substituted alkyl,
alkenyl,
substituted alkenyl,
alkynyl, and
substituted alkynyl;

R^{13} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

R^{14} is selected from the group consisting of hydrogen, alkyl, and substituted alkyl;

Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether, and

-NR^3R^4 where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

Z^3 is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl,

substituted alkynyl,

cyano

carboxyl,

carboxyl ester,

acylamino,

1,3-oxazol-2-yl,

1,3-oxazol-5-yl,

1,3-thiazol-2-yl,

imidazol-2-yl,

2-oxo-[1,3]dithiol-4-yl,

furan-2-yl,

2H-[1,2,3]triazol-4-yl, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

W, W^2, and $W^3$are independently selected from the group consisting of:

hydrogen,

a phosphate,

a phosphonate,

a monofluorophosphate,

acyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

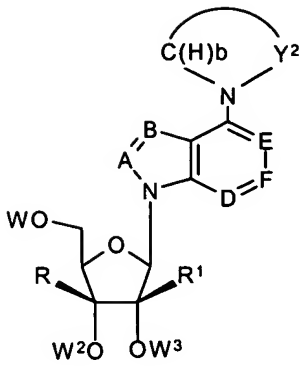
a peptide, and

cholesterol;

and pharmaceutically acceptable prodrugs and salts thereof.

11. The compound according to Claim 10, wherein at least one of R and R^1 is other than hydrogen.

12. A compound of formula II:



II

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,

alkyl,

substituted alkyl,

alkenyl,

substituted alkenyl,

alkynyl, and

substituted alkynyl;

Y^2 is CH_2, N, O, S, SO, or SO_2;

N together with $-C(H)_b$ and Y^2 forms a heterocyclic, substituted heterocyclic, heteroaryl or substituted heteroaryl group wherein each of said heterocyclic, substituted heterocyclic, heteroaryl or substituted heteroaryl group is optionally fused to form a bi- or multi-fused ring system (preferably no more than 5 fused rings) with one or more ring structures selected from the group consisting of cycloalkyl, cycloalkenyl, heterocyclic, aryl and heteroaryl group which, in turn, each of such ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy, substituted alkoxy, thioalkyl, substituted thioalkyl, aryl, heteroaryl, heterocyclic, nitro, cyano, carboxyl, carboxyl esters, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, amino, and substituted amino;

b is an integer equal to 0 or 1;

A, B, D, and E are independently selected from the group consisting of >N, >CH, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-alkenyl, >C-substituted alkenyl, >C-alkynyl, >C-substituted alkynyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-hydroxy, >C-alkoxy, >C-amino, >C-alkylamino, >C-dialkylamino, >C-halogen, >C-(1,3-oxazol-2-yl), >C-(1,3-oxazol-5-yl), >C-(1,3-thiazol-2-yl), >C-(imidazol-2-yl), >C-(2-oxo-[1,3]dithiol-4-yl), >C-(furan-2-yl), and >C-(2H-[1,2,3]triazol-4-yl);

F is selected from >N, >C-CN, >C-NO_2, >C-alkyl, >C-substituted alkyl, >C-alkenyl, >C-substituted alkenyl, >C-alkynyl, >C-substituted alkynyl, >C-$NHCONH_2$, >C-$CONR^{15}R^{16}$, >C-$COOR^{15}$, >C-alkoxy, >C-(1,3-oxazol-2-yl), >C-(1,3-oxazol-5-yl), >C-(1,3-thiazol-2-yl), >C-(imidazol-2-yl), >C-(2-oxo-[1,3]dithiol-4-yl), >C-(furan-2-yl),>C-(2H-[1,2,3]triazol-4-yl), and >C-Y, where Y is selected from the group consisting of hydrogen, halo, hydroxy, alkylthioether, and -NR^3R^4 where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 are hydroxy, alkoxy, or substituted alkoxy;

R^{15} and R^{16} are independently selected from the group consisting of:

hydrogen,
alkyl,
substituted alkyl,
cycloalkyl,
substituted cycloalkyl,
aryl,
substituted aryl,
heteroaryl,

substituted heteroaryl, and

R^{15} and R^{16} together with the nitrogen atom to which they are attached may form a hetercycloalkyl, substituted heterocylcoalkyl, heteroaryl, or substituted heteroaryl;

W, W^2, and $W^3$are independently selected from the group consisting of:

hydrogen,

a phosphate,

a phosphonate,

a monofluorophosphate,

acyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

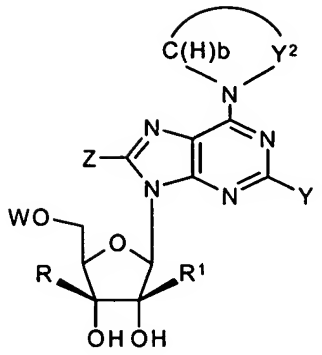
a peptide, and

cholesterol;

and pharmaceutically acceptable salts thereof.

13. The compound according to Claim 12, wherein at least one of R and R^1 is other than hydrogen.

14. A compound of Formula IIA:



IIA

wherein R and R^1 are independently selected from the group consisting of:

hydrogen,
alkyl,
substituted alkyl,
alkenyl,
substituted alkenyl,
alkynyl, and
substituted alkynyl,
provided that R and R^1 are not both hydrogen;

Y^2 is CH_2, N, O, S, SO, or SO_2;

N together with $-C(H)_b$ and Y^2 forms a heterocyclic, substituted heterocyclic, heteroaryl or substituted heteroaryl group wherein each of said heterocyclic, substituted heterocyclic, heteroaryl or substituted heteroaryl group is optionally fused to form a bi- or multi-fused ring system (preferably no more than 5 fused rings) with one or more ring structures selected from the group consisting of cycloalkyl, cycloalkenyl, heterocyclic, aryl and heteroaryl group which, in turn, each of such ring structures is optionally substituted with 1 to 4 substituents selected from the group consisting of hydroxyl, halo, alkoxy, substituted alkoxy, thioalkyl, substituted thioalkyl, aryl, heteroaryl, heterocyclic,

nitro, cyano, carboxyl, carboxyl esters, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, amino, and substituted amino;

b is an integer equal to 0 or 1;

W is selected from the group consisting of:

hydrogen,

a phosphate,

a phosphonate,

acyl,

alkyl,

a sulfonate ester,

a lipid,

an amino acid,

a carbohydrate,

a peptide, and

cholesterol;

Y is selected from the group consisting of Y is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkylthioether, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl and substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

Z is selected from the group consisting of:

hydrogen,

halo,

hydroxy,

alkyl, and

$-NR^3R^4$ where R^3 and R^4 are independently selected from the group consisting of hydrogen, hydroxy, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl and substituted alkynyl, alkoxy, substituted alkoxy, aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclic, substituted heterocyclic and where R^3 and R^4 are joined to form, together with the nitrogen atom bond thereto, a heterocyclic group, provided that only one of R^3 and R^4 is hydroxy, alkoxy, or substituted alkoxy;

and pharmaceutically acceptable salts thereof.

15. The compound according to any of Claims 1-11 wherein R^{14} is hydrogen and R^{13} is selected from the group consisting of alkyl and hydrogen.

16. The compound according to Claim 15, wherein R^{14} is hydrogen and R^{13} is selected from the group consisting of hydrogen, methyl, ethyl, and *n*-propyl.

17. The compound according to any of Claims 1-16, wherein R is hydrogen and R^1 is selected from the group consisting of methyl, vinyl, allyl, acetylenyl, propargyl, and trifluoromethyl.

18. The compound according to Claim 1, wherein A is >CH, B is >N, D is >N, F is >CH or >C-Y and E is >N.

19. The compound according to Claim 1, wherein A is >CH, B is >C-Q, D is >N, F is >CH or >C-Y and E is >N where Q is selected from the group

consisting of hydrogen, halo, cyano, acylamido, alkyl, alkenyl, alkynyl, and heteroaryl.

20. The compound according to Claim 20, wherein Q is selected from the group consisting of hydrogen, chloro, bromo, cyano, $H_2NC(O)$-, methyl, ethyl, vinyl, acetylenyl and oxazidin-2-yl.

21. The compound according to Claim 1, wherein A is >N, B is >C-Q, D is >N, F is >CH or >C-Y and E is >N where Q is selected from the group consisting of hydrogen, halo, cyano, acylamido, alkyl, alkenyl and alkynyl.

22. The compound according to Claim 21, wherein Q is selected from the group consisting of hydrogen, chloro, bromo, cyano, $H_2NC(O)$-, methyl, ethyl, vinyl and acetylenyl.

23. The compound according to any of Claims 1, 3, 4, 6, 7, 8, 10, 12, and 14, wherein W is selected from the group consisting of hydrogen, acyl or triphosphate.

24. The compound according to any of Claims 1, 4, 8, 10 and 12, wherein W^2 and W^3 are hydrogen or acyl.

25. The compound according to Claim 24, wherein W^2 is hydrogen or acyl and W^3 is hydrogen.

26. The compound according to Claim 25, wherein W^2 is acyl.

27. The compound according to Claim 26, wherein said acyl group is selected from the group consisting of acyl groups are derived from amino acids, trimethylacetyl, and acetyl.

28. The compound according to either Claim 12 or 14, wherein N together with $-C(H)_b$ and Y^2 forms a heterocyclic or substituted heterocyclic group.

29. The compound according to Claim 28, wherein said heterocyclic or substituted heterocyclic group is selected from the group consisting of 2-carboxamido-pyrrolidin-1-yl, piperidin-1-yl, N-morpholino, N-thiomorpholino, azetidin-1-yl, pyrrolin-1-yl, 1,2,3,4-tetrahydropyridin-1-yl, 1,2,3,4-tetrahydroisoquinolin-2-yl, and 1,3,4,9-tetrahydro-beta-carbolin-2-yl.

30. A compound selected from the group consisting of:

9-(2'-C-methyl-β-D-ribofuranosyl)- 6- hydroxylaminopurine;

9-(2'-C-methyl-β-D-ribofuranosyl)- 6- methoxylaminopurine;

9-(2'-C-methyl-β-D-ribofuranosyl)- 6- propoxylaminopurine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 4- methoxylamino-pyrrolo[2,3-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)- 4- methoxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)- 4- hydroxylamino-pyrazolo[3,4-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-chloro-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-bromo-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-methyl-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-cyano-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine 5-carboxyl amide;

7-(2'-C-methyl-β-D-ribofuranosyl)-5-ethyl-4- hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-bromo-4- methoxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-methyl-4- methoxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)- 5-cyano-4- methoxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)-4- methoxylamino-pyrrolo[2,3-d]pyrimidine 5-carboxyl amide;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-bromo- 4- hydroxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-methyl- 4- hydroxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-cyano- 4- hydroxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl) - 4- methoxylamino-pyrazolo[3,4-d]pyrimidine- 3-carboxamide;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-bromo- 4- methoxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-methyl- 4- methoxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl)-3-cyano- 4- methoxylamino-pyrazolo[3,4-d]pyrimidine;

1-(2'-C-methyl-β-D-ribofuranosyl) - 4- methoxylamino-pyrazolo[3,4-d]pyrimidine- 3-carboxamide;

9-(2'-C-methyl-β-D-ribofuranosyl)-6-(-S or R-)-hydroxylaminopurine;

9-(2'-C-methyl-5'-O-triphosphate-β-D-ribofuranosyl)-6-(-Sor R-)-hydroxylaminopurine;

7-(β-D-ribofuranosyl)-4-hydroxylamino-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)-4-hydroxylamino-5-ethynyl-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)-4-hydroxylamino-5-ethenyl-pyrrolo[2,3-d]pyrimidine;

7-(2'-C-methyl-β-D-ribofuranosyl)-4-hydroxylamino-5-(1,3-oxazol-5-yl)-pyrrolo[2,3-d]pyrimidine;

6-hydroxylamino-9-(2'-C-methyl-3',5-diphosphite-β-D-ribofuranosyl)purine;

9-(2'-C-methyl-β-D-ribofuranosyl)- 6 –[2-aminocarbonyl-(pyrrolidine-1-yl)]-purine;

9-(2'-C-methyl-β-D-ribofuranosyl)- 6-(1,3,4,9-tetrahydro-beta-carbolin-2-yl)purine;

9-(2'-C-methyl-β-D-ribofuranosyl)- 6-(piperidin-1-yl)purine;

9-(2'-C-trifluoromethyl-β-D-ribofuranosyl)-6-[2-aminocarbonyl-(pyrrolidine-1-yl)]-purine;

9-(2'-C-ethenyl-β-D-ribofuranosyl)-6–[2-aminocarbonyl-(pyrrolidine-1-yl)]-purine;

9-(2'-C-ethynyl-β-D-ribofuranosyl)-6–[2-aminocarbonyl-(pyrrolidine-1-yl)]-purine;

9-(2'-C-methyl- β -D-ribofuranosyl)- 6-(azetidin-1-yl)purine;

9-(2'-C-methyl- β -D-ribofuranosyl)- 6-(pyrrolidin-1-yl)purine;

9-(2'-C-methyl- β -D-ribofuranosyl)- 6-(3,6-dihydro-2H-pyridin-1-yl)purine; and

9-(2'-C-methyl- β -D-ribofuranosyl)- 6-(3,4-dihydro-1H-isoquinolin-2-yl)purine.

31. A pharmaceutical composition comprising a pharmaceutically acceptable diluent and a therapeutically effective amount of a compound or mixture of compounds according to any of Claims 1-30.

32. A method for treating HCV in a mammal which method comprises administering to said mammal diagnosed with HCV or at risk of developing HCV a therapeutically effective amount of a compound or mixtures of one or more compounds according to any of Claims 1-30.

33. A method for treating HCV in a mammal which method comprises administering to said mammal diagnosed with HCV or at risk of developing HCV a therapeutically effective amount of a pharmaceutical composition according to Claim 31.